

REMARKS

Claims 12-13, 16-28 and 32-33 are now in this application.

By this amendment the language in paragraph 9 of the specification has been corrected as suggested by the examiner.

Also by this amendment the language of former claim 14 has been incorporated into claim 12, and claims 14-15 have accordingly been canceled.

It is also believed that the changes made by this amendment have corrected the issues raised by the examiner in paragraph 5 of the Office action.

In view of paragraph 3 of the Office action, language from claims 12, 18, and 21 has been incorporated into claim 28, thus making claim 28 independent.

In view of their reciting the same structure as claim 28, Claims 29-31 have been canceled.

New claim 33 has been added, which is very similar to present claim 12, but adds an explicit recitation that the body is coated with the charged plastic powder, and specifically includes coating within the axial slots.

The examiner rejected former claim 14, which corresponds to present claim 12, as unpatentable over Hapsburg-Lothringen in view of Hopeck, Otani et al and Matsuzaki et al. With regard to this rejection the following is pointed out:

Habsburg-Lothringen describes the coating of an armature of an electric motor by a “fluidized bed electrostatic coating” method, see column 4, line s45+. This is also described in the background section of the present application at page 2, paragraphs 5 and 6. However, it is pointed out that with such a method, it is not possible to create relatively large layer

thicknesses such as between 1.0 and 2.0 mm. Habsburg-Lothringen include an indication that the method is not limited to the fluidized bed method, but this reference does not provide any indication of a "direct powder spraying onto the body" as is recited in claim 12.

Hopeck describes a coating method in which connecting elements of a dynamo-electrical machine are coated with epoxy powder. In this case, by means of spray methods, layer thicknesses of up to 0.020 inches are produced and it is stated that up to .0045 inches would theoretically be possible. However, even from Hopeck one skilled in the art does not find any indication whatsoever that this spray method could be used for coating the inside of the slots in a motor armature. This is particularly so because the slots act as a Faraday cage. Therefore even though Hopeck gives a measurement for the layer thickness of 0.045 inches, this measurement does not refer to the interior of the slots of an electric motor, since these slots form a Faraday cage, and would preclude such interior coating without some further knowledge beyond the teachings of Hopeck. In other words, such a layer thickness within the slots of a motor is not attainable without knowledge of the present invention.

As one skilled in the art knows, the field lines of the electrical field that develops between the spraying site and the body are concentrated at pointed protrusions of the body. Inside the slot, a Faraday cage is therefore created which is free of field lines, and therefore the inside of the slots can be coated only with difficulty.

According to the present invention, particles of a defined size, which on average have a particular size whose diameter is greater than 150 μm , are therefore used for the spraying method. By using such coarse plastic powder, which is sprayed onto the motor armature

having the slots using the spraying tool, even the inside the slot, which forms a Faraday cage, a sufficiently large layer thickness can be formed of approximately 1.0 to 2.0 mm on both on the outer circumference and on the inner walls of the slot. In the course of the deposition of these coarse powder particles, markedly less electrical charge accumulates at the surface, so a potential difference continues to exist between the charged particles of the spray gun and the grounded motor armature.

The use of this kind of coarse-particle plastic powder with a mean diameter of $>150\text{ }\mu\text{m}$, however, has not previously been known to one skilled in the art, and especially not from any of the references cited.

Quite the contrary. Until now, for the use of spray nozzles, it was only known to use markedly smaller particles with mean diameters of $<100\text{ }\mu\text{m}$.

Natsuzaki does disclose the use of a particle size in the range from 3 to 180 pm, but this material is used explicitly only for an “electrostatic fluidized bed coating apparatus” (column 5, line 29). This coating method for an armature motor, is quite well known, however, as described in the background section of the present application. Regardless of this particle size as taught by Natsuzaki, one skilled in the art finds no indication whatsoever, not in Matsuzaki, and not in any of the cited prior art, of applying plastic powder with a particle size having a diameter of greater than $150\text{ }\mu\text{m}$ to a motor armature by means of such “direct powder spraying”.

Therefore a combination of the cited reference does not teach the particulars of the present invention. The present invention is only realized based on impermissible hindsight, with knowledge of the present invention already in hand.

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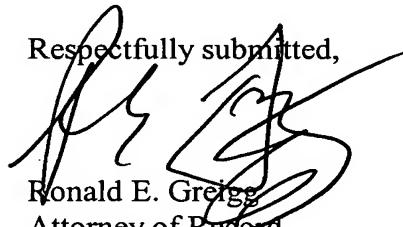
In further point of fact, the Matsuzaki reference points precisely away from the present spraying method, since Matsuzaki use a special "Charge-Controlling-Agent" (see claim 1), which has a diameter of 0.01 to 1 μm . For technical reasons this "Charge-Controlling-Agent," with its very small diameter, cannot be sprayed together with the other particles of up to 180 μm diameter by means of known spraying methods.

Amended claim 12 is therefore not anticipated by, and further is not made obvious by, the cited references.

In addition to this, new claim 33 has been added, which claim 33 even further is neither anticipated by nor made obvious by the cited prior art.

For all of the above reasons, singly and in combination with each other, entry of this amendment and allowance of the claims are courteously solicited.

Respectfully submitted,



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